AUTHOR INDEX

Albrecht J., 317
Alfonso M., 267
Alho H., 209
Anand-Srivastava M. B., 13
Ask A-L., 329
Azuma Y., 379

Bagetta G., 81
Bajgar J., 555
Banerjee S. K., 289
Barrett P., 101
Beani L., 191
Bianchi C., 191
Bonne C., 395
Brailowsky S., 363
Breer H., 349
Brett R., 241
Brusa R., 57

Caló G., 191
Campbell T. G., 183
Carli M., 13
Carraro S., 559
Carvalho A. P., 267
Cazevieille C., 395
Chaki S., 37
Chaudhury S., 289
Chen D-Z., 541
Cherici G., 525
Ciani E., 549
Cohen M. L. 565
Contestabile A., 549
Cossy-Isasi S., 323
Cowburn R. F., 73
Cuello A. C., 495

D'Hooge R., 215
Das S., 289
Dawson R. M., 173
De Laveleye F., 221
De Deyn P. P., 215
Delaunoy J-P. 43
Dewar K. M., 13
Diksic M., 231
Dolly J. O., 81
Drian M-J., 459
Duarte C. B., 267
Duran R., 267
Dutrait N., 395
Duval D., 485

Eaton S. A., 451
Ebert B., 507
Enero M. A., 91
Eva C., 57

Facchinetti F., 549
Ferraro L., 191
Ferreira I. L., 267
Fowler C. J., 73, 329, 401
Fraser G. L., 401
Froissard P., 485
Fusco M., 57
Fusek J., 555

Gabellini N., 533
Gackenheimer S. L., 565
Garlind A., 73
Gbadebo T. D., 183
Gebicke-Haerter P. J., 1
Gehlert D. R., 565
Genazzani E., 57
Gobaille S., 43
Gobert J., 221
Graff M-N., 43
Grdiša M., 231
Guarnieri T., 559

Han D., 339, 379
Hashimoto T., 389
Helliwell R., 101
Hertting G., 1
Horikawa T., 23
Howell H. E., 101
Huber G., 281

Inoue A., 259

Jakobson K., 165
Jalsenjak I., 495
Jańaky R., 575
Jiankang Liu, 201
Johnston G. A. R., 583

Kashiwai K., 339
Kato T., 589
Katsura M., 541
Kaur G., 159
Kawai M., 201
König N., 459
Krogsgaard-Larsen P., 507
Kuchler S., 43
Kuriyama K., 389, 541

Lakhman S. S., 159
Langui D., 281
Lenz S. M., 507
Leonardi P., 525
Liberini P., 495
Liu J. K., 589
Löffler J., 281
Lombardi G., 525
Lund T. M., 507

Madepalli Lakshmana K., 67
Madsen U., 507
Manev H., 533
Manev R. M., 533
Manning J. W., 183
Marescau B., 215
Maysinger D., 495
Menegale M., 191
Meshki Baf M. H., 67
Meyer D. K., 253
Meynier F., 395
Mitrovic A. D., 583
Molina-Holgado E., 13
Monsigny M., 43
Montiel T., 363
Morari M., 191
Morgan P. J., 101
Mori A., 201
Moroni F., 525
Morrow C., 165
Mulder A. H., 433
Muller A., 395
Müller T. B., 473
Muramatsu M., 37
Murphy S., 165

Nair S., 81
Nakata Y., 259
Narasimhachari N., 183
Narita S., 339
Negishi Y., 259
Nikolics K., 301
Nishio H., 259
Nistico G., 81
Nomura Y., 23
Nowak J. A., 275
Noyer M., 221

Ogita K., 339, 379
Ohkuma S., 541
Oja S. S., 317, 575
Okada F., 23
Olenik C., 253
Otomo S., 37

Panzetta P., 323
Patthy L., 301
Pearce B., 165
Pei Y-Q., 215
Pellegrini-Giampietro D. E., 525
Pellicciari R., 525
Petersen S. B., 473
Piccardo P., 495
Probst A., 281

Quach H. T., 29

Raulli R., 209
Reader T. A., 13
Ricci Gamalero S., 57
Roche A-C., 43
Rodnight R., 517
Rodriguez de Lores Arnaiz G., 91
Rumsby M. G., 241

Sakamoto T., 379
Salazar P., 363
Salt T. E., 451
Sandberg M. P., 329
dos Santos Medeiros M., 369
Saransaari P., 317, 575
Sarkar P. K., 289
Schiavo N., 57
Schobert A., 1
Schoch J., 349
Schoepp D. D., 439
Schoffelmeer A. N. M., 433
Schousboe A., 473
Seregi A., 1
Serrano P., 459
Shu H., 389
Skopec F., 555
Smith W. E., 29
Sonnewald U., 473
Sparapani M., 549
Sridhara Rama Rao B. S., 67
Stewart J. K., 183
Subhash M. N., 67
Sugden D., 147

Takada A., 231
Tapia R., 363
Tareilus E., 349
Thate A., 253
Tokumitsu Y., 23
Tomasini C., 191
Traynor J. R., 427
Tsuiki K., 231
Turner A. J., 369

Uhl A., 253
Unsgård G., 473

Vantini G., 57
Varga V., 575
Vatassery G. T., 29
Vauquelin G., 221
Villani L., 559
Vincendon G., 43
Viola M. S., 91
Virgili M., 549, 559

Wengert Watts S., 565
Westergaard N., 473
Wofchuk S. T., 517
Wroblewski J. T., 209
Wülfert E., 221
Wysmyk U., 317

Xiaoyang Wang, 201

Yoneda Y., 339, 379

Zanetta J-P., 43
Zawilska J. B., 275

SUBJECT INDEX

acetylcholine release - caused by eserine, 589
- influence of minaprine, 37
- involvement of protein kinase C, 37
acetylcholine - microdialysis, 589
acetylcholinesterase activity - effect of diabetes, 159
acetylcholinesterase - carbamylation and decarbamylation, 173
- effect of physostigmine and carbaryl, 1
- influence of oxime, 173
adenylate cyclase - action of GTP and dopamine, 23
agrin-like proteins - of neuromuscular junction, 301
alloxan - induced diabetes, 159
α_2 receptors - binding of mivazerol, 221
Alzheimer's disease - accumulation of β-amyloid precursor protein$_{695}$, 281
γ-aminobutyric acid - see GABA
α-amino-hydroxy-5-methyl-4-isoxazole-propionic acid - see AMPA
ammonia - affects taurine release, 317
AMPA agonist - (S)-APPA, 507
AMPA agonists - molecular pharmacology, 507
AMPA antagonist - (R)-APPA, 507
AMPA receptors - activated by α-dendrotoxin, 81
AMPA - effect on calcium, 459
β-amyloid precursor protein$_{695}$ - accumulation in Alzheimer's disease, 281
- 50 kDa N-terminal fragment, 281
anterograde serotonin transport, 231
antioxidant - defense in brain, 201
(S)-APPA - AMPA agonist, 507
(R)-APPA - APMA antagonist, 507
^{3}H-aspartate release - modulated by metabotropic glutamate receptors, 525
aspartate - uptake into synaptosomes, 583
astrocytes - content and release of taurine, 317
- DNA metabolism, 165
- glucose metabolism, 473
- hypoxia, 473
- phosphoinositide metabolism, 165
- stimulation of cAMP, 1
astrocytoma clone D384 cell line - cholecystokinin metabolism, 369
autoradiography - localisation of ^{125}I-LDS binding sites, 565

binding experiments - for localising opioid receptors, 401
binding sites - for iodomelatonin, 101

calcium responses - to AMPA, 459
calcium signals - related to activation of GABA$_B$ receptor, 349
calcium - influences binding of ligands to non-NMDA amino acid receptors, 379
cAMP - influence of Cholera toxin, isoproterenol, phorbol ester, 1
carbamylation - of acetylcholinesterase, 173
carbaryl - effect upon acetylcholinesterase, 173
cardiovascular responses - in diabetic rats, 183
catecholamines - in diabetic rats, 183
^{3}H-CGS 19755 binding sites - to spinal cord, 329
^{3}H-CGS 19755 - ligand for NMDA receptor, 329
cholecystokinin metabolism - in different cell lines, 369
Cholera toxin - action on cAMP, 1
cholinergic markers - influence of nerve growth factor, 459
cholinesterases - effect of tacrin and derivatives, 555
- in blood, 555
convulsant uremic guanidino compounds, 215
cytotoxic effects - of glutamate, 485
c-fos - activation associated with expression of procholecystokinin gene, 253
c-jun - activation associated with expression of procholecystokinin gene, 253

decarbarmylation - of acetylcholinesterase, 173
α-dendrotoxin - and non-NMDA activation, 81
- induces hippocampal damage, 81
- selective K^+ channel blocker, 81
desipramine treatment - dopamine action on adenylate cyclase, 23
- influence on dopamine receptors, 23
desipramine - action on D_1 and D_2 receptors, 23
- effect upon Na^+, K^+-ATPase, 91
development of neurones - localisation of gangliosides, 323
diabetes - effect upon acetylcholinesterase activity, 159
- produced by alloxan, 159
diabetic rats - cardiovascular responses and catecholamines, 183
- streptozocin, 183
5,7-dihydoxytryptamine lesion - anterograde serotonin transport, 231
dithiothreitol - influence on glutamate-induced release of GABA, 575
divalent cations - effects on ^{3}H-GR 65630 binding to 5-HT_3 receptors, 259
DNA synthesis - in astrocytes, 165
DNA synthesis - promoted by phosphatidic acid, 165
domoic acid - induces release of GABA from retinal cells, 267
dopamine D_4 receptors - regulates activity of serotonin N-acetyltransferase, 275
dopamine receptor - regulates serotonin N-acetyl transferase activity in retina, 275
dopamine receptors - effect of chronic lithium treatment, 13
- influence of desipramine, 23
dopamine - influence on adenylate cyclase, 23
dopaminergic system - toxicity induced by MPTP, 559

encapsulated fibroblasts, 495
ependymal cell junctions - neoglycoproteins, 43
eserine - releases acetylcholine, 589
ethanol - effect on phosphatidylinositol-4,5-bisphosphate, 541
- effect on phospholipase C, 541
excitatory amino acids - influence on phosphatidylinositol turnover, 191
excitotoxic induction - of ornithine decarboxylase, 549

fibroblasts - genetically engineered, 495
- production of nerve growth factor, 495
free radical damage - in brain, 201

GABA infusion - effect upon glutamate decarboxylase activity, 363
^{3}H-GABA release - evoked by glutamate agonists, 575
- from retinal cells induced by domoic acid, 267
GABA release - glutathione, dithiothreitol influence on glutamate action, 575
- mediated by muscarinic M_1 receptors in cortex, 389
$GABA_B$-receptor-mediated inhibition of calcium signals, 349
ganglioside immunostain localisation - developmental changes, 323
glial fibrillary acid protein - phosphorylation induced by glutamate, 517
glucocorticoid receptors in rat brain - characteristics, 339
glucocorticoid receptors - binding of ^{3}H-triamcinolone acetonide, 339
glucose metabolism - in astrocytes, 473
glutamate action - influence of glutathione, dithiothreitol, 575
glutamate agonists - evoke release of ^{3}H-GABA, 575
glutamate decarboxylase activity - influence of GABA infusion, 363
glutamate receptor agonists - influence on PC12 cells, 485
glutamate receptors - metabotropic subtypes, 439
glutamate toxicity - protection by prostaglandins, 395
glutamate - cytotoxic effects, 485
- effect on glial fibrillary acid protein, 517
- uptake into synaptosomes, 583
glutathione - influence on glutamate-induced release of GABA, 575
glycerophospholipids - susceptibility to oxidative attack, 241
^{3}H-GR 65630 binding - to 5-HT_3 receptor, 259
granule neurones - content and release of taurine, 317
GTP - influence on adenylate cyclase, 23
guanidinosuccinate - convulsant, 215
G-protein coupled glutamate receptors, 439
G-protein - target for lithium, 13

hippocampal damage - caused by α-dendrotoxin, 81
5-HT_{2A} receptors - labeled by ^{125}I-LSD, 565
- localisation in guinea pig and rat brains, 565

5-HT_3 receptors - ^{3}H-GR 65630 binding, 259
5-HT_3 receptors - effects of divalent cations on ^{3}H-GR 65630 binding, 259
hydroxyl free radicals - attack on myelin lipids, 241
hypothermia-sensitive calcium responses - in brainstem cells, 459
hypoxia - astrocytes, 473
- changes followed by NMR, 473
^{3}H-inositol 1,4,5-triphophosphate binding - characterisation, 73
^{125}I-iodomelatonin - binding, 147

ionotropic excitatory amino acid receptors - binding studies, 379
isoproterenol - stimulates cAMP, 1

kidney cells - transfected with metabotropic glutamate receptor cDNA, 533

lithium treatment - influence on G-protein, 13
lithium - effect on dopaminergic receptor, 13
^{125}I-LSD - labels 5-HT_{2A} receptors, 565
- localisation of binding sites, 565

mannose - effect on ependymal cell barrier, 43
melatonin receptors, 101, 147
melatonin - molecular and cellular effects, 117
meningo-cortical injury - affects c-fos, c-jun and procholecystokinin gene, 253
metabotropic excitatory amino acid receptors - in transmission, 451
metabotropic glutamate receptor cDNA - used to transfect kidney cells, 533
metabotropic glutamate receptors, 439
- heterogeneity, 533
- novel functions, 439
metabotropic receptors, 191
- activation causes GFAP phosphorylation, 517
- involved in aspartate release, 525
α-methyl serotonin - used to measure serotonin transport, 231
1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine - see MPTP
methylguanidine - convulsant, 215
microdialysis - of acetylcholine, 589
minaprine - influence on acetylcholine release, 37
mitochondrial membranes - oxidation of vitamine E, 29
mivazerol - specificity for α_2-receptors, 221
MK-801 - does not protect against MPTP toxicity, 559
modulation of aspartate release - by glutamate receptors, 525
monoamines - effect of sodium valproate, 67
MPTP-induced toxicity - of retinal dopamine system, 559
- protection by quinolinic acid, 559
muscarinic M_1 receptors - mediates inhibition of GABA release in cortex, 389
muscarinic receptors - influence of nerve growth factor, 57
myelin lipids - susceptibile to oxidative attack, 241

Na^+, K^+-ATPase actvity - effect of desipramine, 91
Na^+,K^+-ATPase activity - associated with noradrenergic system, 91
neoglycoproteins - and ependymal cell junctions, 43
nerve growth factor - effect on muscarinic receptors, 57
- influence on cholinergic parameters, 459
- produced in fibroblasts, 495
neuroblastoma line SH-SY5Y - cholecystokinin metabolism, 369
neuromuscular junction - agrin-like proteins, 301
NMDA receptor blockade - effect on polyamine metabolism, 549
NMDA receptor - induces translocation of PKC, 209
-^{3}H-CGS 19755 a ligand, 329
- binding studies, 379
NMDA receptor activation - translocation of PKC into nucleus, 209
NMDA - action on phosphatidylinositol turnover, 191
NMR - to follow changes from hypoxia, 473
non-NMDA receptors - binding of ligands affected by calcium and potassium thiocyanate, 379
noradrenergic system - involvement of Na^+, K^+-ATPase activity, 91
nuclear magnetic resonance - see NMR
nucleus - PKC, 209
N-methyl-D-aspartate - see NMDA

opioid receptors - heterogeneity, 433
- in peripheral tissues, 427
- subtypes, 401
ornithine decarboxylase - excitotoxic induction, 549
oxidation - of vitamine E, 29
oxime - action of acetylcholinesterase, 173

PC12 cells - influence of glutamate receptor agonists, 485
phenylglycine antagonists - at metabotropic glutamate receptors, 451
^{3}H-phorbol ester binding - 209
phorbol ester - potentiates Cholera toxin stimulated cAMP, 1
- potentiates isoproterenol stimulated cAMP, 1
phosphatidic acid - promotes DNA synthesis, 165
- promotes phosphoinositide metabolism, 165
phosphatidylinositol turnover - effect of excitatory amino acids, 191
phosphatidylinositol-4,5-bisphosphate - influence of ethanol, 541
phosphoinositide metabolism - in astrocytes, 165
- promoted by phosphatidic acid, 165
phospholipase C - influence of ethanol, 541
phosphorylation - of GFAP by glutamate, 517
physostigmine - effect upon acetylcholinesterase, 173
PKC translocation - caused by activation of NMDA receptor, 209
polyamine metabolism - action of NMDA receptors, 549
potassium channel blocker - α-dendrotoxin, 81
potassium thiocyanate - influences binding of ligands to non-NMDA amino acid receptors, 379
procholecystokinin gene - induced by injury, 253
prostaglandins - protects neurones from glutamate toxicity, 395
protein kinase C - in release of acetylcholine, 37
protein kinase C - see PKC

quinolinic acid - protects MPTP-induced toxicity of dopaminergic system, 559

receptors - for melatonin, 101, 147
release - of GABA, 389
retina of goldfish - MPTP-induced toxicity of dopamine system, 559
retinal cells - release of GABA, 267
retinal serotonin N-acetyltransferase, 275

scopolamine - influence on eserine-induced release of acetylcholine, 589
serotonin N-acetyltransferase in retina - regulated by dopamine via D_4-receptor, 275
serotonin transport - effect of lesions by 5,7-dihydroxytryptamine, 231
- measured with α-methyl-serotonin, 231
serotonin - see 5-HT, 5-hydroxytryptamine
sodium, potassium ATPase - see Na^+, K^+-ATPase
sodium valproate - action on monoamines, 67
sphingolipids - susceptibility to oxidative attack, 241
spinal cord - NMDA receptors, 329
streptozocin - diabetic rats, 183
synaptosomes - oxidation of vitamine E, 29
- uptake of glutamate and aspartate, 583

tacrin - effect upon cholinesterases, 555
taurine - release influenced by ammonia, 317
thiobarbituric test - measurement of oxidative attack on myelin lipids, 241
transfection - of kidney cells with cDNA of glutamate receptor, 533
^{3}H-triamcinolone acetonide binding - to glucocorticoid receptors, 339
tubulin binding protein - in plasma membrane, 289

uremic guanidino compunds - uptake in juvenile mice, 215

vitamine E - an antioxidant in mitochondrial membranes, 29
- oxidation, 29